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10/695,031	10/28/2003	Melvin Jokela	2487.003US1	5660

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EXAMINER	
HON, SOW FUN	

ART UNIT	PAPER NUMBER
1772	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/695,031	JOKELA ET AL.	
	Examiner	Art Unit	
	Sow-Fun Hon	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-27 is/are pending in the application.

4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 10-27 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 28 October 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-9, drawn to a process, classified in class 427, subclass 411.

II. Claims 10-27, drawn to an article, classified in class 428, subclass 34.1.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the packaging article can be made with the addition of an extra step after the first step of forming a first mixture over a substrate, wherein the extra step consists of further drying the mixture on the substrate to solid form by passing the mixture coated substrate through an oven before forming a second mixture over the first mixture.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with John Greaves on August 9, 2005, a provisional election was made with traverse to prosecute the invention of Group II, claims 10-27. Affirmation of this election must be made by applicant in replying to this

Office action. Claims 1-9 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

2. Claim 19 is objected to because of the following informalities: The item "SBD" should be spelt "SBR". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 10-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Parent claim 10 already recites the limitation of "the brightener first film includes calcium carbonate in a first amount, and brightener particles in a second amount, wherein the first amount is more than the second amount ... the brightener second film includes calcium carbonate in a third amount, and brightener particles in a fourth

amount, wherein the fourth amount is more than the third amount". Therefore dependent claim 11 is repetitive in reciting that the calcium carbonate in the brightener first film has a higher calcium carbonate/brightener particles ratio than the calcium carbonate in the brightener second film. Furthermore, dependent claims 17 and 20 recite that the ratios are from about 20-80 parts calcium carbonate and about 20-80 parts brightener particles, the ranges of which do not make sense in light of the finite inequality of the first amount of calcium carbonate is more than the second amount of brightener particles claimed in parent claim 10.

Claim 16 recites that the "first film includes from about 12 % to about 25% of mixture, and the balance the calcium carbonate and the brightener particles". There is a lack of antecedent basis in parent claim 10 for the "mixture", and it is unclear what the "mixture" is.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelli (US 5,439,707), excluding the optional component of a second brightener film.

Nelli teaches a packaging system (column 1, lines 7-17) comprising: a folded and bonded substrate including a first outer surface and a second inner surface, wherein the

substrate includes a first side thereof (linerboard is converted into a carton for packaging, column 1, lines 10-13); a linerboard substrate (column 2, lines 35-40) coated with a first film (formulation) which includes 0 – 80 % clay, 0 – 80 % calcium carbonate; 10 – 40 % titanium oxide and binder (column 2, lines 60-65), wherein a preferred mixture (formulation) includes calcium carbonate in a first amount of 47 % which is more than the brightener particles in a second amount (4 % clay and 15 % titanium oxide, column 2, lines 65-68), and a third finish film of wax is applied above the first brightener film (column 3, lines 10-15). Therefore, because Nelli teaches that the carton is used for various packaging applications (column 1. lines 10-13), it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have disposed a commercial product within the folded and bonded substrate, in order to take advantage of the packaging system.

5. Claims 10-21, 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shanton (US 5,776,619) in view of Nelli (US 5,439,707).

Regarding claim 10, Shanton teaches a packaging article (food container, cartons, column 3, lines 55-65) comprising: a substrate 12 including a first side thereof; a first film (base coat 14) above the substrate; and a second film (top coat 16) above the first film (base coat 14, column 4, lines 1-5). Shanton teaches that the first film (base coat) comprises a blend of about 20 parts of calcium carbonate, about 80 parts of kaolin clay and at least one binder (styrene acrylic polymer latex, column 5, lines 35-42), and that the second film (top coat) comprises about 10 parts calcium carbonate and about 90 parts kaolin clay (column 5, lines 42-45). Shanton teaches that premium grade

kaolin clay has a GE brightness in excess of 85%, column 5, lines 47-50) and that ultrafine wet ground calcium carbonate enhances brightness and gloss (column 5, lines 50-60), hence teaching that the kaolin clay, calcium carbonate and binder mixture form a brightener film. Shanton teaches that the second brightener film (top coat) comprises about 10 parts calcium carbonate and about 90 parts kaolin clay (column 5, lines 42-45). Therefore, Shanton teaches that the second brightener film includes calcium carbonate in a third amount, and brightener particles of kaolin clay in a fourth amount, wherein the fourth amount of kaolin clay is more than the third amount of calcium carbonate (column 5, lines 42-45).

Shanton teaches that regular ground calcium carbonate and precipitated calcium carbonate could be used alone or in combination with the other pigments such as titanium oxide as well (column 6, lines 1-10), but fails to teach that the calcium carbonate in a first amount in the first brightener film, is more than the brightener particles in a second amount in the first brightener film, or that a finish third film is provided above the second brightener film.

Nelli teaches a paperboard (linerboard) substrate (column 2, lines 35-40) coated with a first film (formulation) which includes 0 – 80 % clay, 0 – 80 % calcium carbonate; 10 – 40 % titanium oxide and binder (column 2, lines 60-65), wherein a preferred mixture (formulation) includes calcium carbonate in a first amount of 47 % which is more than the brightener particles in a second amount (4 % clay and 15 % titanium oxide, column 2, lines 65-68). Nelli teaches that the first film (formulation) has high water absorbency to aid in the ink drying process (column 2, lines 35-40) when the next

brightener (ink) layer is applied, and maintains the brightness of the multicolor graphics even after a finish third film (wax) has been applied over the second brightener film (ink layer, column 2, lines 3-8).

Therefore, because Nelli teaches that the first brightener film above the substrate has high water absorbency when it includes calcium carbonate in a first amount which is more than the brightener particles in a second amount, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used the first brightener film of Nelli in place of the first brightener film of Shanton, in order to provide the second brightener film of Shanton with a faster drying rate, while maintaining the desired brightness of the second brightener film of Shanton which is ontop of the first brightener film, even after a finish film (wax) has been applied over the second brightener film, as taught by Nelli.

Regarding claim 11, the calcium carbonate in the first brightener film of Shanton in view of Nelli has a calcium carbonate/brightener particles ratio of 71 % (Nelli, 47 % calcium carbonate, 4 % clay and 15 % titanium oxide, column 2, lines 65-68), which is within the claimed range of from about 50 % to about 100 %.

Regarding claims 12-13, Shanton teaches that the calcium carbonate in the second brightener film has a calcium carbonate/brightener particles ratio of 10 % (10 parts calcium carbonate and about 90 parts kaolin clay, column 5, lines 42-45), which is within the claimed range of from about 0 % to about 50 %. The ratio of calcium carbonate/brightener particles in the first brightener film is therefore greater than the ratio in the second brightener film.

Regarding claim 14, Shanton teaches that the brightener particles are selected from kaolin clay, titanium oxide, aluminum oxide (alumina) and combinations thereof (column 6, lines 1-5).

Regarding claim 15, Shanton teaches that the first brightener film includes 17% (20 parts latex, column 9, lines 20-30), which is within the claimed range of from about 12 % to about 25 %. The latex includes styrene butadiene and polyvinylacetate (column 10, lines 18-25).

Regarding claims 16-17, Shanton teaches that the first brightener film includes 17% (20 parts latex, column 9, lines 20-30), which is within the claimed range of from about 12 % to about 25 %. The latex includes styrene butadiene and polyvinylacetate (column 10, lines 18-25). Although Shanton in view of Nelli fails to disclose that the polyvinylacetate latex and SBR latex are in a ratio of about 10:9 or 10 parts polyvinylacetate to 9 parts SBR latex, because Shanton teaches that the latex formulation (suitable) is selected by one skilled in the paperboard coating art (column 9, lines 1-10), it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have varied the ratio of polyvinylacetate latex to SBR latex to obtain the claimed ratios of polyvinylacetate to styrene butadiene, in order to obtain the desired combination of binder properties provided by the mixture.

Regarding claim 18, Shanton teaches that the binder in the second brightener film includes a mixture including polyvinylacetate latex and styrene butadiene latex (column 10, lines 18-25), in the amount of 17 % (20 parts, column 9, lines 20-30), which is within the claimed range of from about 14 % to about 30 %.

Regarding claims 19-20, Shanton teaches that the second brightener film includes 17% (20 parts latex, column 9, lines 20-30), which is within the claimed range of from about 12 % to about 25 %. The latex includes styrene butadiene and polyvinylacetate (column 10, lines 18-25). Although Shanton in view of Nelli fails to disclose that the polyvinylacetate latex and SBR latex are in a ratio of about 1:1 or 12 parts polyvinylacetate to 12 parts SBR latex, because Shanton teaches that the latex formulation (suitable) is selected by one skilled in the paperboard coating art (column 9, lines 1-10), it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have varied the ratio of polyvinylacetate latex to SBR latex to obtain the claimed ratios of polyvinylacetate to styrene butadiene, in order to obtain the desired combination of binder properties provided by the mixture.

Regarding claim 21, although Shanton in view of Nelli fails to teach that the third finish film is from polyvinyl acetate latex, styrene butadiene latex, styrene butadiene acrylonitrile latex, ethylene vinyl acetate latex, and combinations thereof, because Shanton teaches that polyvinyl acetate latex, styrene butadiene latex, ethylene vinyl acetate latex and combinations thereof are used as film formers (column 5, lines 25-35) and varnishes (column 8, lines 5-20), it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have selected the third finish film from said compositions, in order to obtain the desired finish properties.

Regarding claims 24-25, Shanton teaches a packaging system comprising a folded and bonded substrate including a first outer surface and a second outer surface (carton, column 3, lines 55-65) wherein the substrate 12 including a first side thereof; a

first film (base coat 14) above the substrate; and a second film (top coat 16) above the first film (base coat 14, column 4, lines 1-5). Shanton teaches that the first film (base coat) comprises a blend of about 20 parts of calcium carbonate, about 80 parts of kaolin clay and at least one binder (styrene acrylic polymer latex, column 5, lines 35-42), and that the second film (top coat) comprises about 10 parts calcium carbonate and about 90 parts kaolin clay (column 5, lines 42-45). Shanton teaches that premium grade kaolin clay has a GE brightness in excess of 85%, column 5, lines 47-50) and that ultrafine wet ground calcium carbonate enhances brightness and gloss (column 5, lines 50-60), hence teaching that the kaolin clay, calcium carbonate and binder mixture form a brightener film. Shanton teaches that the second brightener film (top coat) comprises about 10 parts calcium carbonate and about 90 parts kaolin clay (column 5, lines 42-45). Therefore, Shanton teaches that the second brightener film includes calcium carbonate in a third amount, and brightener particles of kaolin clay in a fourth amount, wherein the fourth amount of kaolin clay is more than the third amount of calcium carbonate (column 5, lines 42-45). Shanton teaches a commercial product disposed within the folded and bonded substrate (consumer food service products, column 9, lines 35-40).

Shanton teaches that regular ground calcium carbonate and precipitated calcium carbonate could be used alone or in combination with the other pigments such as titanium oxide as well (column 6, lines 1-10), but fails to teach that the calcium carbonate in a first amount in the first brightener film, is more than the brightener

particles in a second amount in the first brightener film, or that a finish third film is provided above the second brightener film.

Nelli teaches a paperboard (linerboard) substrate (column 2, lines 35-40) coated with a first film (formulation) which includes 0 – 80 % clay, 0 – 80 % calcium carbonate; 10 – 40 % titanium oxide and binder (column 2, lines 60-65), wherein a preferred mixture (formulation) includes calcium carbonate in a first amount of 47 % which is more than the brightener particles in a second amount (4 % clay and 15 % titanium oxide, column 2, lines 65-68). Nelli teaches that the first film (formulation) has high water absorbency to aid in the ink drying process (column 2, lines 35-40) when the next brightener (ink) layer is applied, and maintains the brightness of the multicolor graphics even after a finish third film (wax) has been applied over the second brightener film (ink layer, column 2, lines 3-8).

Therefore, because Nelli teaches that the first brightener film above the substrate has high water absorbency when it includes calcium carbonate in a first amount which is more than the brightener particles in a second amount, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used the first brightener film of Nelli in place of the first brightener film of Shanton, in order to provide the second brightener film of Shanton with a faster drying rate, while maintaining the desired brightness of the second brightener film of Shanton which is ontop of the first brightener film, even after a finish film (wax) has been applied over the second brightener film, as taught by Nelli.

6. Claims 22-23, 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shanton in view of Nelli as applied to claims 10-21, 24-25 above, and further in view of Kinsey (US 6,110,548).

Shanton in view of Nelli teaches a packaging article comprising: a substrate including a first side thereof; a brightener first film above the substrate, wherein the first brightener film includes calcium carbonate in a first amount, and brightener particles in a second amount, wherein the first amount is more than the second amount, and wherein the first brightener film includes at least one binder; a second brightener film above the first brightener film, wherein the second brightener film includes calcium carbonate in a third amount, and brightener particles in a fourth amount, wherein the fourth amount is more than the third amount, and wherein the second brightener film includes at least one binder; and a third finish film above the second brightener film.

In addition, Shanton in view of Nelli teaches that the packaging article is a carton (Shanton, column 3, line 63). Shanton in view of Nelli fails to teach that the packaging article has a gable-top package configuration with an inner surface and the third finish film has an outer surface, let alone that the gable-top package has a skived edge.

Kinsey teaches a gable top carton for the packaging of liquid foods such as juice (column 3, lines 1-5), wherein the gable-top carton is skived (column 3, lines 5-10) on the edges so that the paperboard edges are not exposed to the liquid contents (column 5, lines 1-5). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a gable-top configuration with an inner surface and the third finish film has an outer surface, wherein the edges are skived, for

the carton of Shanton in view of Nelli, in order to obtain a carton for packaging liquid food.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571)272-1498. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hon.

Sow-Fun Hon
08/17/05

HAROLD PYON
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1772

8/22/05